B.) AMENDMENTS TO THE SPECIFICATION

Please replace paragraph [0017] bridging pages 4-5 with the following rewritten and amended paragraph:

During operation of the linear motor 10, one or more stators 8 drive or move ~~a rotor~~ an element or member 12 back and forth in the same axial direction as the piston 30 as shown in Figure 1. Connected to ~~the rotor~~ element 12 are one or more connecting linkages 14 that connect ~~the rotor~~ element 12 to the connecting mechanism 20. The connecting mechanism 20 shown in Figure 1 is a connecting rod eccentric type mechanism 20 mounted on bearings 21 or other suitable rotating structures using known methods in the art. The movement of ~~the rotor~~ element 12 of the linear motor 10 moves the connecting linkages 14, which turn or displace the connecting mechanism 20 thereby moving the piston rod 32 to propel the piston 30 back and forth in the cylinder 50. The movement of the piston 30 and piston rod 32 in the cylinder 50 is dependent on the direction of movement of ~~the rotor~~ element 12 and linkages 14 and the particular configuration of the connecting mechanism 20. The use of the connecting mechanism 20 defines a positive, controlled and predetermined travel path for the piston rod 32 and piston 30, thereby preventing the overextension or underextension of the piston 30 during certain loading conditions of the compressor.

Please replace paragraph [0018] on page 5 with the following rewritten and amended paragraph:

As shown in Figure 2, a gear-type mechanism 120 is used to connect the linear motor 10 and the piston rod(s) 32. The mechanism 120 includes a linear gear 22 that is connected to and driven by the linkage 14 that is driven by ~~the rotor~~ element 12. The liner gear 22 preferably includes opposed first and second gear surfaces 24, 26. Preferably, each gear surface 24, 26 is substantially parallel with the longitudinal axis of the linear gear 22. The gear surface 24, 26 may be any suitable gear surface type, such as square-toothed, grooved, or serrated. As shown in Figure 2, each gear surface 24, 26 contacts a connecting gear 28 that is connected to a corresponding piston rod 32. Each connecting gear 28 is shaped so as to smoothly engage the

gear surface 24, 26 to drive the connecting rod 32 with a minimum of energy loss, and to provide a pre-determined and controlled travel path for the piston rod 32 and piston 30. Preferably, the travel path includes predetermined top-dead center piston position and bottom-dead center piston position which remain constant despite load increases and decreases. In an alternative embodiment not illustrated, a single gear surface is provided on the linear gear, with a plurality of connecting gears aligned such that each connecting gear is in contact with the gear surface, each connecting gear driving a corresponding piston rod to propel a corresponding piston.

Please replace paragraph [0019] bridging pages 5-6 with the following rewritten and amended paragraph:

As shown in Figure 3, a track-type mechanism 220 is used to connect the linear motor 10 and piston rod(s) 32. The mechanism 220 includes a drive block 60 having an embedded track 62 for receiving a drive pin 64. The drive pin 64 is connected to the linkage 14 that is in turn driven by ~~the rotor~~ element 12. The drive pin 64 is also connected to one or more piston rods 32. As ~~the rotor~~ element 12 drives the linkage 14, the drive pin 64 is moved in the track 62. As the drive pin 64 moves, it pushes the piston rod 32 to force the piston 30 to move in the cylinder 50. The track 62 is shaped and sloped so as to smoothly engage the piston connecting rod 32 to drive the piston 30 up and down in the cylinder 50 with a minimum of energy loss, and to provide a pre-determined and controlled travel path for the piston rod 32 and piston 30. Preferably, the travel path includes predetermined top-dead center piston position and bottom-dead center piston position which remain constant despite load increases and decreases. In the embodiment of Figure 3, these positions are accomplished by the inclusion of substantially horizontal, non-sloped track sections 66 at each end of the track 62. When the drive pin 64 enters a horizontal section 66, the position of the connecting rod 32 remains substantially vertically constant, so that the piston 30 is neither driven up nor pulled down until the pin is pulled or pushed back into the sloped portion of the track by the linkage 14. Preferably, as shown in Figure 3, more than one piston rod 32 is connected to the drive pin 64 so that reciprocating opposed pistons 30 can be driven as the pin 64 moves throughout the track 62.